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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/833,183	04/11/2001	Joseph A. Hinkle	705570US1	1828
24938	7590	05/05/2004	EXAMINER	
DAIMLERCHRYSLER INTELLECTUAL CAPITAL CORPORATION			MICHALSKI, JUSTIN I	
CIMS 483-02-19			ART UNIT	PAPER NUMBER
800 CHRYSLER DR EAST			2644	
AUBURN HILLS, MI 48326-2757				

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/833,183

Applicant(s)

HINKLE ET AL.

Examiner

Justin Michalski

Art Unit

2644

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 April 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 4.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2. Claim 11 rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. Claim 11 refers to a "variable first parameter level" in line 2. The specification was searched to find reference to a "variable first parameter level" and was not found. Applicant is invited to identify reference to a variable first parameter level in the disclosure as originally filed.

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 1-7 and 14-18 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 recites the limitation "said first processing source" in line 4. There is insufficient antecedent basis for this limitation in the claim.

Claim 2 recites the limitation "said first input" in line 2. There is insufficient antecedent basis for this limitation in the claim.

Claim 3 recites the limitation " said first input " in line 2. There is insufficient antecedent basis for this limitation in the claim.

Claim 4 recites the limitations " said first input " in line 2 and "said reduction limit of said second parameter" in lines 1 and 2. There is insufficient antecedent basis for these limitations in the claim.

Claim 5 recites the limitation "said reduction limit of said second parameter" in lines 1 and 2. There is insufficient antecedent basis for this limitation in the claim.

Claim 6 recites the limitation "said first input" in line 2. There is insufficient antecedent basis for this limitation in the claim.

Claim 7 recites the limitation "said second input operator selectable volume level" in line 2. There is insufficient antecedent basis for this limitation in the claim.

Claim 14 recites the limitation "said first input" in line 19. There is insufficient antecedent basis for this limitation in the claim.

Claim 15 recites the limitation "said first input" in line 2. There is insufficient antecedent basis for this limitation in the claim.

Claims 15-18 are dependent claims containing the limitations of independent claim 14.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claim 8-10, 12 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Brewer et al. (Hereinafter "Brewer") (US Patent 5255,324) in view of Nicola et al. (US Patent 4,912,424).

Regarding Claim 8, Brewer discloses a method for controlling distortion in an audio system (Figure 1) having first (bass) and second (volume) parameters (Brewer discloses volume and bass parameters) (Column 4, lines 9-12) wherein each of said parameters is a function of an operator input (Brewer discloses switches controlling volume and bass through microcontroller 10) (Column 4, liners 7-12), said method comprising the steps of: determining a reduction limit of said first parameter (Brewer discloses a predetermined reference level, i.e. reduction limit, in step 26) (Column 4, lines 52-53), determining a reduction limit of said second parameter (Brewer discloses reduction of wideband gain, i.e. volume, is stopped when clipping distortion falls below the predetermined threshold (i.e. reduction limit of second parameter) (Column 5, lines 22-32); detecting a clipping signal in said audio system (Brewer discloses clip signal from amp 16 to interface 18); incrementally reducing a level of said first parameter until one of either said clipping signal recedes or said reduction limit of said first parameter is achieved (Brewer discloses Figure 2, steps 25-29, which discloses reducing level of the bass signal until no clipping (step 25) is present or reference is reached in step 26); incrementally reducing a level of said second parameter if said reduction limit of said first parameter is achieved and said clipping signal persists (Brewer discloses Figure 2

steps 30-32 where volume is reduced when bass is over reference value in step 26).

Brewer discloses incrementally recovering the bass and volume parameters in steps 33 through 41 but does not disclose recovering first parameter (bass) if said original level of second parameter (volume) is recovered and said clipping signal is not detected.

Brewer discloses prior art Nicola et al. (US Patent 4,912,424) which discloses an analog circuit to prevent distortion in an amplified audio signal (Column 2, lines 30-68). Nicola et al. reduces distortion as Brewer by limiting a bass frequency gain and limiting a wideband frequency gain. Nicola et al. discloses when clipping falls below threshold the volume (i.e. second parameter) returns to the volume set by the user (i.e. original level) then followed by recovery of the bass (i.e. first parameter) frequencies to avoid harmonic distortion (Column 4, lines 34-44). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to include the method recovery as taught by Nicola et al. in order to increase the output of the audio signal to normal while avoiding harmonic distortion.

Regarding Claim 9, Brewer further discloses said first parameter is a bass parameter and said second parameter is a volume parameter (Figure 2, Steps 28 and 31).

Regarding Claim 10, Brewer further discloses that the reference level (i.e. reduction limit) is predetermined (i.e. function of an operator input) (Column 4, lines 52-53).

Regarding Claim 12, Brewer further discloses said reduction limit of said second parameter is a function of said reduction limit of said first parameter (Figure 2, step 26

discloses second parameter is not reduced until first parameter, steps 27 and 28, are reduced to predetermined limit, i.e. second parameter is a function of predetermined limit of first parameter).

Regarding claim 13, Brewer further discloses said reduction limit of said second parameter (Volume) is equal to the difference between a maximum reduction limit of said second parameter (It is inherent that the maximum reduction limit of second parameter (Volume) is zero since a negative volume level is not possible) and said reduction limit of said first parameter (Brewer discloses in Figure 2, step 26 that the volume will not be reduced until the bass in steps 26-29 reach a predetermined limit (i.e. reduction limit of first parameter). It is at this point where the second parameter will start to be reduced, therefore the limit.)

Conclusion

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Justin Michalski whose telephone number is (703)305-5598. The examiner can normally be reached on 8 Hours, 5 day/week.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bill Isen can be reached on (703)305-4386. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JIM



XU MEI
PRIMARY EXAMINER